



TUDOR ARCH—FROM A DOORWAY IN CROYDON PALACE.

Shewing by fair Lines how the Present common mode of Drawing such Arches is, in my opinion, imperfect.

THE interior line ABC is described at twice from the centres D and G, according to the data given by "T. L." in THE BUILDER, page 304; each portion being of uniform curvature, while the radius of the one is approaching to three times the length of the other. With this variation, two arches from different circles are patched together to form what many are taught to think, and appear to be satisfied, is a fair curve, proving that both mind and eye require instruction.

On each side of this middle line, thus drawn, is described another by simple continuous motion, with a continual variation of curvature from A to C; and it will be observed that a fair line of the same character half-way between them, would pass through the three points ABC of the approximate line, shewing that it (which from the mode of generation alone ought to be manifest) is too quick immediately below B, and too flat above that point. In short, the true line would deviate just so much from the approximate method as is necessary to produce a fair curve passing through the three points, and that a tangent to the point A be perpendicular to the horizontal or springing line.

The approximate method of producing an imitation of an ellipse, by patching together portions of four circles, might, in a similar way, be made as obviously inaccurate to an untutored eye; and every eye, and mind too, must be untaught which cannot perceive the inaccuracy without such explanation; and, consequently, cannot contemplate any varying form of an object so as to acquire a true impression of the different parts.

On a small scale, without it is by a very delicate engraving, it is difficult to shew the precise character of either the approximate or the true curve. On the other hand, the larger they are drawn the more obvious the imperfection and the truth.

It is supposed, however, after seeing this, that there are few architects, if they will allow the eye, and the mind too, to dwell for a sufficient time on any arch, a large one especially, who will not immediately discover the character. In this way ancient forms ought to be compared with modern constructions.

But suppose the ancients had not arrived at a knowledge of a strictly fair line, does it follow that an imperfect line should be continued when an accurate one may be

applied with greater facility? Yet perhaps the fair line may be found to approach as nearly to the form of the Croydon arch as the approximate one, if a curve formed by

continuous mode of generation was applied to it.

JOSEPH JOPLING.

29, Wimpole-street.

OPENING OF THE ROYAL EXCHANGE.—Great preparations are making, not only in the Royal Exchange itself, but at the Bank and several houses in the vicinity, for the forthcoming visit of her Majesty to the City of London. The wooden pavement in Cornhill is nearly completed, and in a few days that thoroughfare will be re-opened. The area of the western front of the Exchange, whereon stands the Wellington statue, is nearly completed, and the boarding will be shortly removed, when the whole building will be thrown open to the public. It is expected that the ceremony will take place on Wednesday, the 23rd instant. One thousand three hundred distinguished persons are to be invited to dine on the occasion. The Gresham and Corporation Committees have ordered Mr. Wyon to execute two medals commemorative of the event.

INDIA-RUBBER PAVEMENT FOR STABLES.—As a pavement for stables the caoutchouc preparation is said to be unequalled, preventing the lodging of stale matters, and their consequent noxious exhalations, requiring little litter, and preserving the knees and other parts of the horse from injuries which are apt to be received in stone-paved stables. By a little precaution, the ammonia, which now exhales to the injury of the horses' health, may be collected and sold as a manure, at from two to three pounds per horse per annum. The stables of the commissioners of Woolwich Dock-yard have been paved with this material for upwards of two years, and are allowed to be superior in point of cleanliness, freedom from smell, and healthiness, to what they were previous to the laying down of the elastic pavement.

GIGANTIC SCHEME.—We have heard that the practicability of connecting the opposite shores of the Mersey by a stupendous chain bridge is under consideration. It is said that, by the formation of a viaduct, on the principle of an inclined plane, on arches, commencing at the top of James-street to the margin of the river, a sufficient elevation may be obtained. A similar erection on the Woodside bank of the river would, of course, be requisite. Our acting and enterprising Cheshire neighbour would, no doubt, readily assist in promoting a project so magnificent. Such a work would throw all other suspension bridges into the shade, and be a world's wonder. Of its practicability no doubt, we believe, is entertained, and it will be allowed that the enterprise is worthy the combined energies of Liverpool and Birkenhead.—*Liverpool Albion.*